

(1) $SiO_2 + 2H_2O$ \rightleftharpoons $Si(OH)_4$ \hookrightarrow $Si(ONa)_4$

(2) $Si(OH)_4 + OH \Rightarrow HSiO_3 + 2H_2O$

Alkali NaOH

(3) $2HSiO_3 \rightleftharpoons SiO_2 + 2H_2O$

Fig. 1

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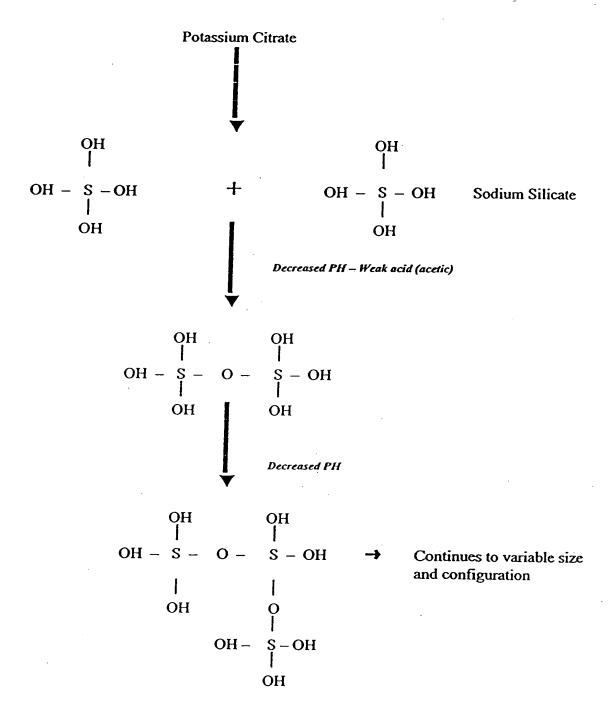
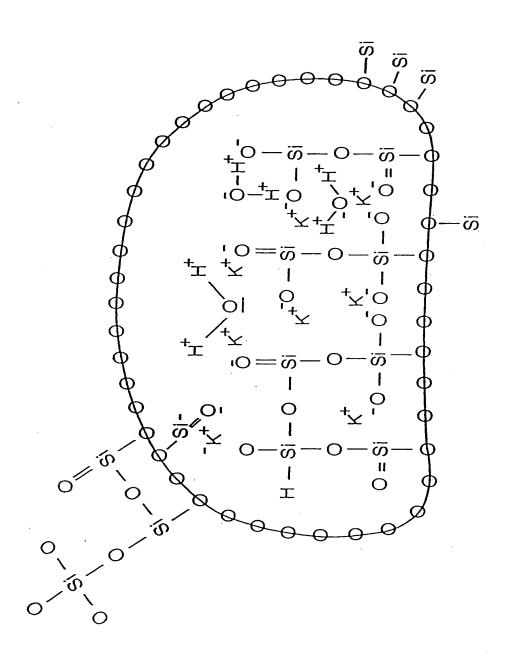


Fig. 2





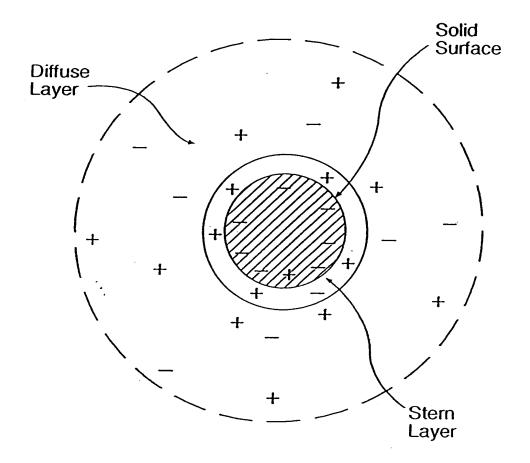


FIG. 4

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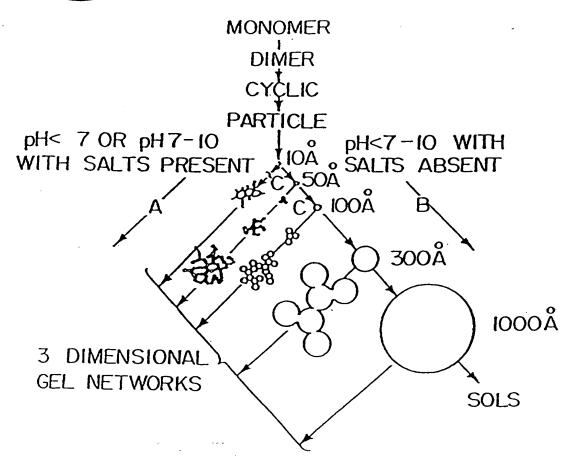
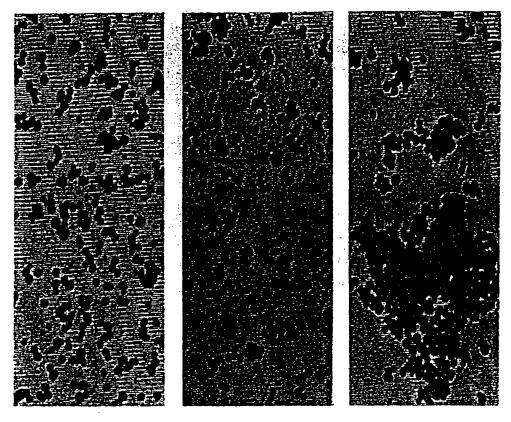


FIG. 5

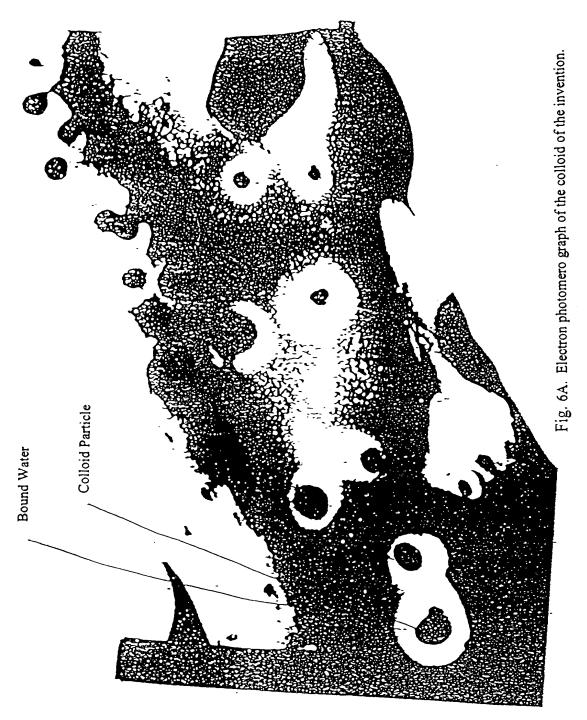


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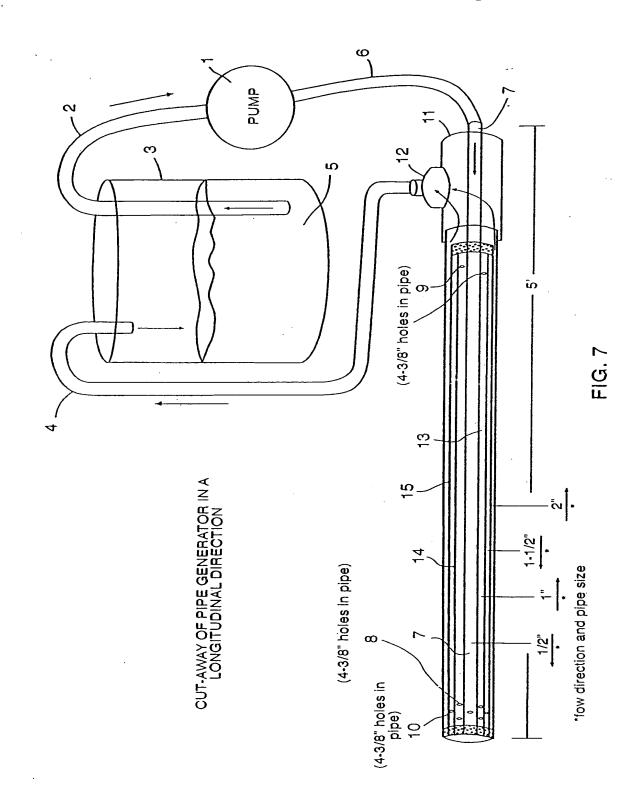


Electron micrographs showing stages of aggregation of 35 millimicron silica particles: *left*, colloidal aggregates; *center*, aggregates approaching colloidal size; *right*, supercolloidal aggregates or precipitate.

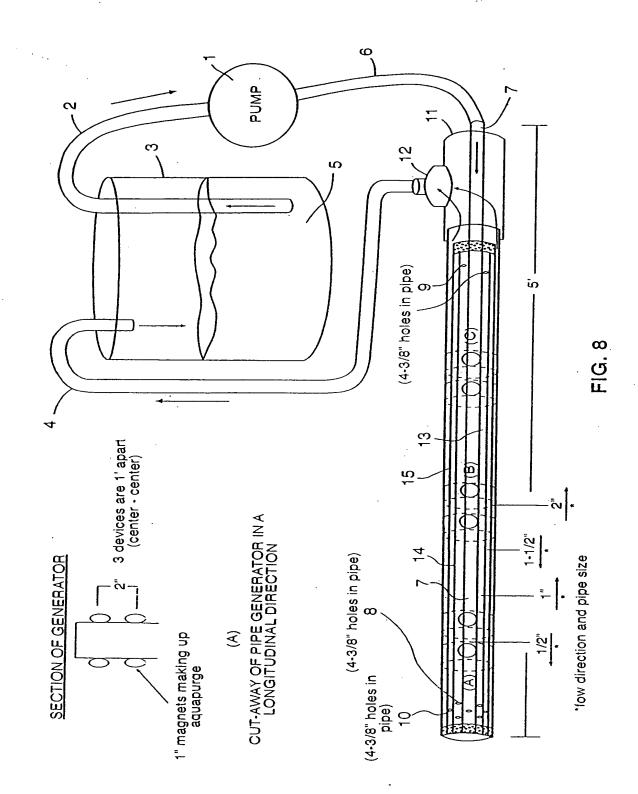






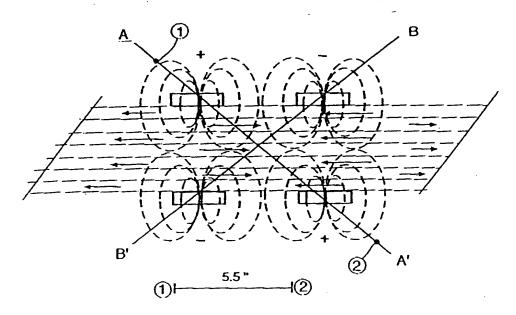


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Cross sectional view of counter current generator of the invention with lines A-A' and B-B' noted for measurement purposes.



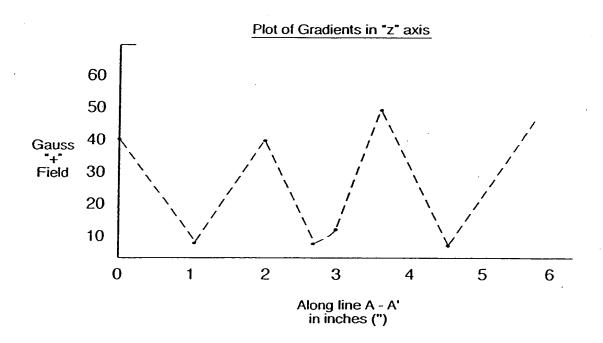


FIG. 9



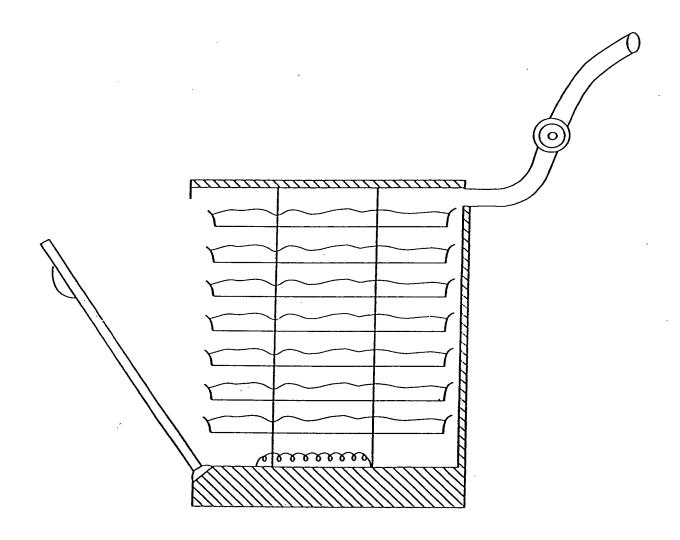


FIG. 10



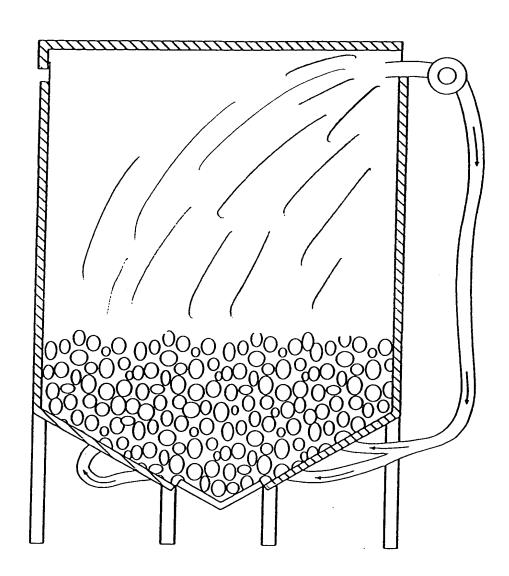
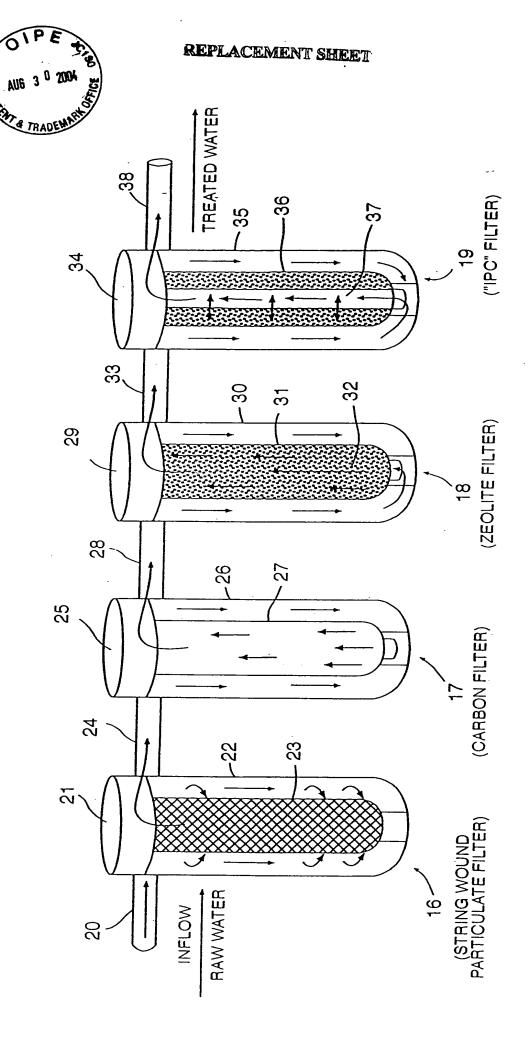


FIG. 11



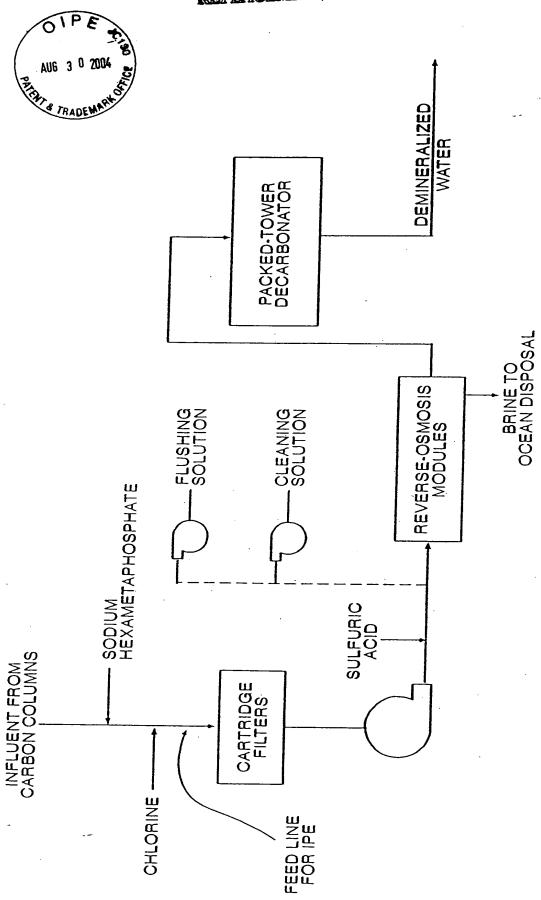


FIG. 1



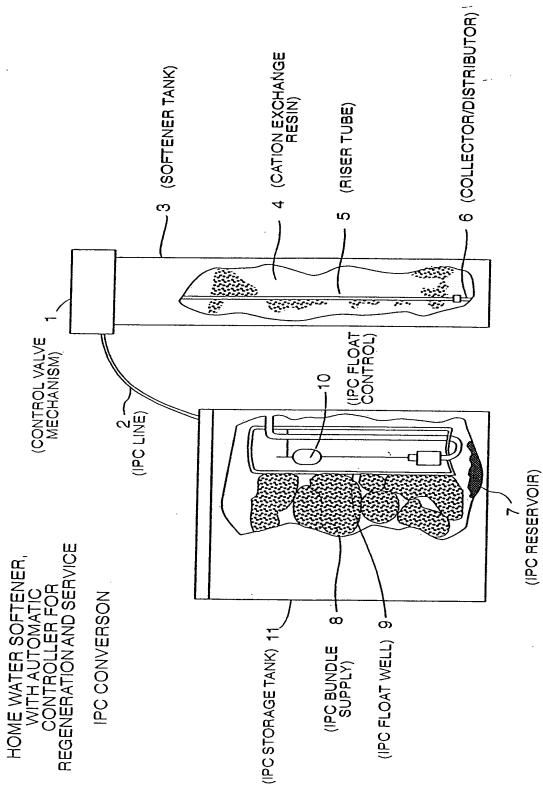
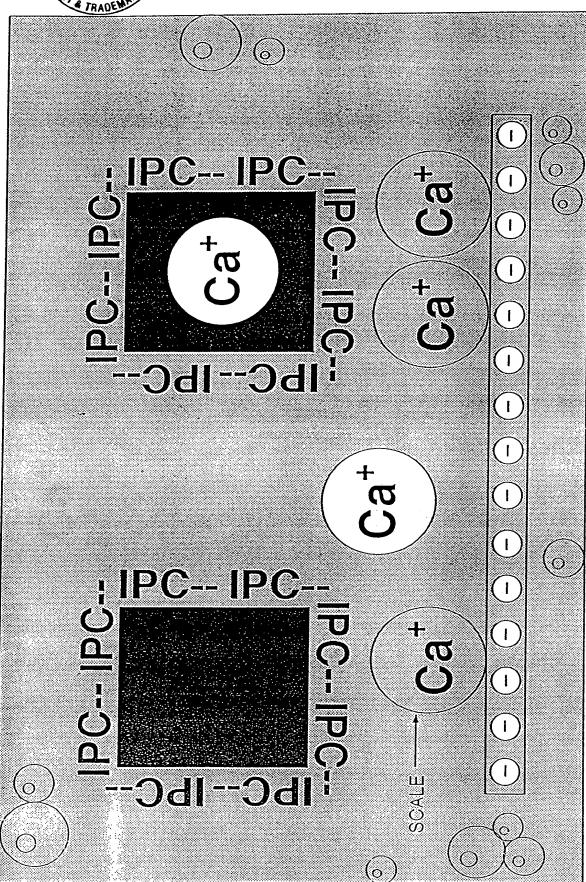


FIG. 14

FIG. 16





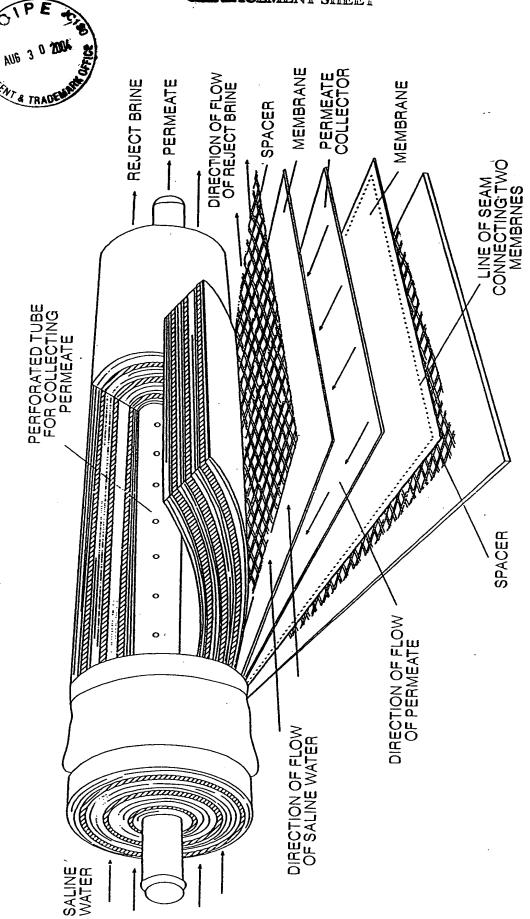


FIG. 18

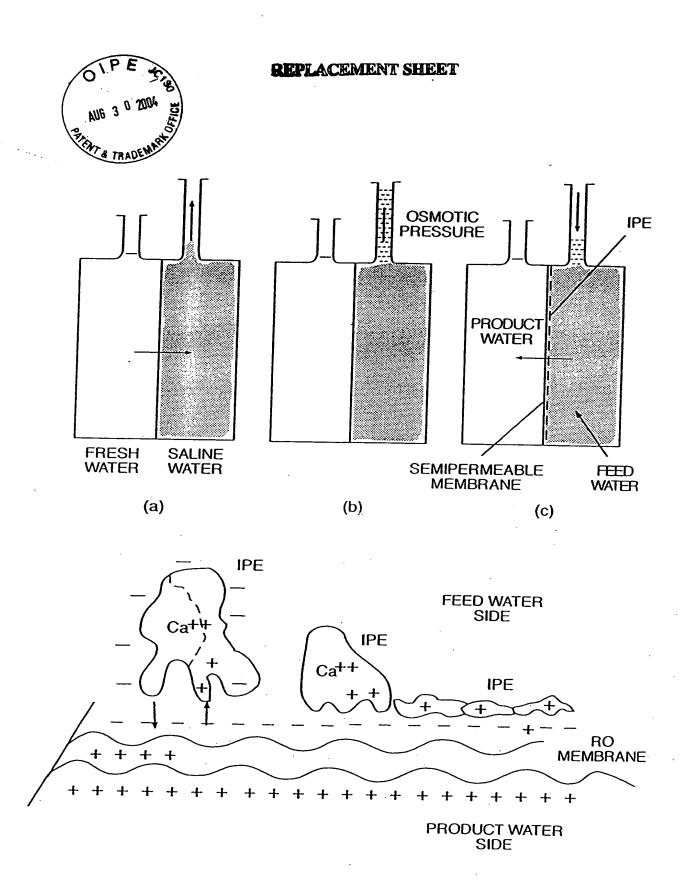


FIG. 19



